Correction

My earlier remarks that *Gelasimus annulipes* Latreille and *G. marionis nitidus* Dana were new records for the Bombay Coast [Chhapgar, B. F., 1957, *JBNHS* **54** (3): 509; 510] are incorrect as these have already been recorded from Bandra, Bombay by Altevogt [1955, *JBNHS* **52** (4): 702-716]. I am thankful to Dr. Rudolf Altevogt, Münster University, for drawing my attention to these discrepancies.

Taraporevala Marine Biological Station,
Bombay, B. F. CHHAPGAR, M.Sc.
August 16, 1958.

19. DIAGNOSIS OF A NEW SPECIES OF THE GENUS *BRANCHINELLA* SAYCE (CRUSTACEA : BRANCHIOPODA : ANOSTRACA) FROM SAMBHAR LAKE, RAJASTHAN*

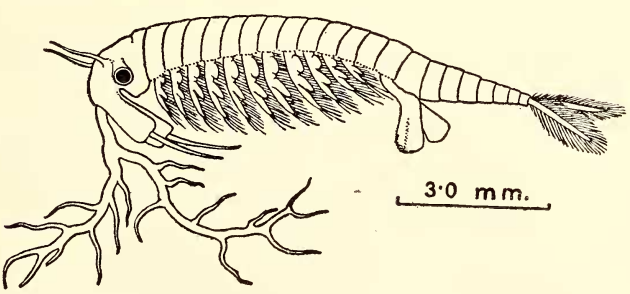
(*With three text-figures*)

A collection of branchiopod crustacea, made by Dr. B. Biswas of the Zoological Survey of India during November 1956, contained a new species of the anostracan genus *Branchinella* Sayce, which is being briefly described below.

Family Thamnocephalidae

Branchinella biswasi,[1] sp. nov.

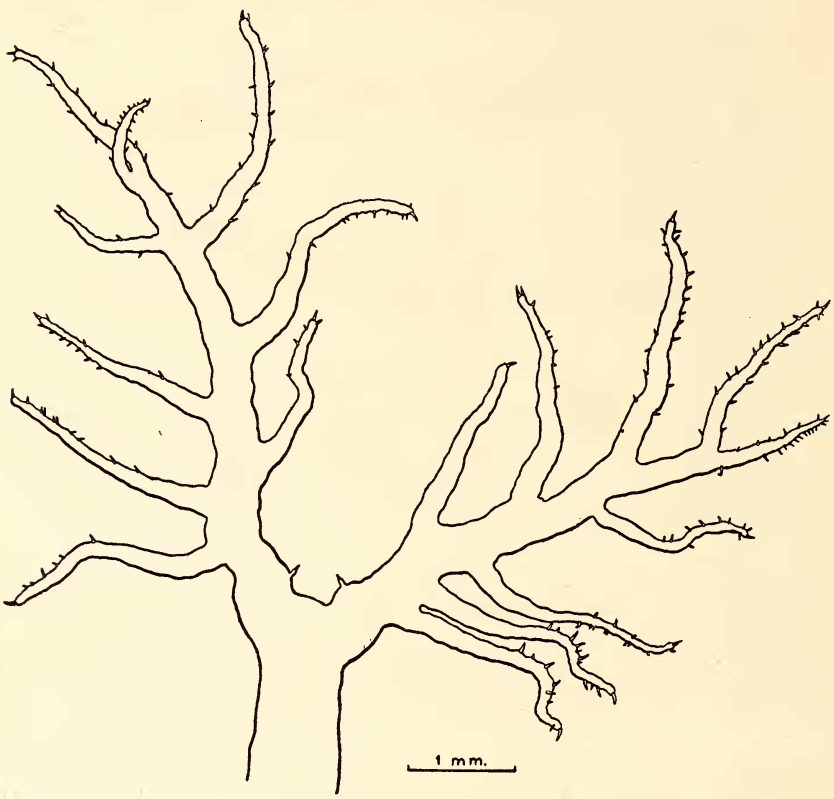
Male.—Generally resembling that of *Branchinella ornata* Daday[2] (Text-fig. 1). Frontal appendage more than twice as long as the



Text-fig. 1.—*Branchinella biswasi* sp. nov. ♂

* Published with the permission of the Director, Zoological Survey of India.
[1] Named after Dr. B. Biswas who collected the specimens.
[2] Daday de Dees, E., (1910) : *Ann. Sci. Nat.* (9) **11** : 91-489.

second antenna, extending as far as the end of trunk when stretched back. Basal part, about a fifth as long as the entire appendage, thick and flabby; distal four-fifths bifurcated, each bifurcation with 4-6 secondary branches, irregularly arranged on each side; each secondary branch with scattered spinules more profuse towards the apex; apex tipped with 1, 2, or 3 spinules (Text-fig. 2).



Text-fig. 2.—*Branchinella biswasi*, sp. nov. Distal part of frontal appendage.

Endites 3-5 of all legs with 2, 2, 1, anterior setae respectively, praeepidodites non-serrate, entire, without any notch in the middle.

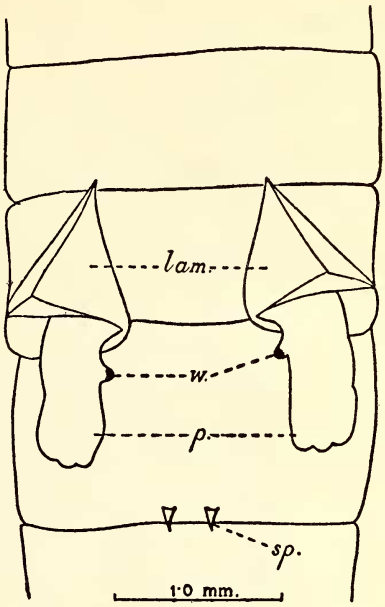
Penes with a triangular lamina frontal to each (Text-fig. 3, *lam.*); basal part with a small wart-shaped appendage (Text-fig. 3, *w.*), distal part with a complicated armature of spines as in *B. ornata.*

Third abdominal segment with a pair of median ventral spines on its posterior margin (Text-fig. 3, *sp.*).

All other characters as in *B. ornata.*

Female.—Resembling male. Second antenna with a rounded apex without an acute point. Ovisacs large extending back up to the middle

or end of the sixth abdominal segment. No median ventral spines on the posterior margin of the third abdominal segment.



Text-fig. 3.—Ventral view of abdomen of male of *B. biswasi: lam.* triangular lamina frontal to penes ; *p.* Penes (Not fully everted, so the distal part with armature of spines not visible.) ; *sp.* Ventro-median spines on the third abdominal segment ; *w.* Wart-shaped appendage on the basal part of the penis.

Size.—Males 6.5 to 18.7 mm. in length. Females measuring 8.0 mm. to 25.5 mm.

Types—Holotype: ♂ (12.0 mm.), Regd. No. C3652/1, Zoological Survey of India.

Paratypes: 30 ♂♂ (6.5 to 18.7 mm.), 34 ♀♀ (8.0 mm.-25.5 mm.) Regd. No. C3653/1, Zoological Survey of India.

Type-locality.—Sambhar Lake at Nawa, Nagaur Distr., Rajasthan. Coll. Dr. B. Biswas, 16 Nov. 1957.

Remarks.—B. biswasi closely resembles *B. ornata* Daday recorded by Daday[2] (p. 269) from Kalahari in Bechuanaland and by Barnard[3] (p. 201) from Potchefstroom in Transvaal, both from south Africa. The important differences are presence in *B. biswasi* of a wart-shaped appendage on the basal part of penes, a pair of median-ventral spines on the posterior edge of the third abdominal segment, and the absence of a notch on the praeepipodites of legs.

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[3] Barnard, K. H. (1929): *Ann, S. Afr. Mus.* **29** : 181-272.

This is the second species of *Branchinella* from India, the other being *B. kugenumaensis* Ishikawa recorded by Linder[4] from Madras and *B. kugenumaensis* var. *madurae* Sanjeeva Raj[5] from Madura. The genus is now for the first time recorded from north India.

ZOOLOGICAL SURVEY OF INDIA,
34, CHITTARANJAN AVENUE, K. K. TIWARI
CALCUTTA-12,
September 18, 1958.

20. A NOTE ON VERY HEAVY FOULING OF COPPER SHEATHED HULLS OF NAVAL CRAFT AT BOMBAY

(*With a plate*)

Copper sheathing of ships' hulls has been considered to be the most successful method for prevention of marine fouling and attack of marine borers (1). The use of such protective sheathings has lost its popularity only with the development of suitable anti-fouling paints. However, even now copper sheet coverings are used to protect wooden hulls and also for other special reasons. Some of the Indian Naval craft with wooden hulls have their underwater portions covered with copper sheets and during dry-docking of such vessels at Bombay, it has been observed that generally the plates remain unfouled or lightly fouled with the worms (*Hydroides norvegica* Gunnerus). However, during the first quarter of 1958 a few of the craft, when dry-docked, were found to have been very heavily fouled. This was an unusual observation and the present account is based on data collected from three such vessels.

OBSERVATIONS

The fouling observed on the copper-sheathed hulls was found to be uniformly heavy at all regions of the hull and also at all depths, beginning from the portion just below the boot-top area. A significant feature was that the fouling was mostly due to different species of Bryozoans. A porton of the hull above the bilge-keel of one of the boats is shown in Fig. 1, which gives a clear idea of the intensity of fouling observed. Representative collections of the fouling were made and the organisms present were identified as follows:

Crisia eburnea Linnaeus: Colonies of this erect polyzoan were found in large numbers and the bunches had grown to a maximum

[4] Linder, F. (1941): *Zool. Bidrag Uppsala*, **20**: 101-202, pl. i.
[5] Sanjeeva Raj, P. J. (1951): *Curr. Sci.* **20**: 334.